**Instructor’s Manual**

***to accompany***

***Martin’s Human Anatomy and Physiology***

***Laboratory Manual,* Main, Cat, and Fetal Pig Versions**

**Fourth Edition**

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**Laboratory Exercise 1**

**Scientific Method and Measurements**

**Pre-Lab Answers**

1. a 4. b 7. b
2. c 5. c 8. a
3. d 6. c

**Laboratory Assessments Answers**

Part A: Assessments

1. (experimental results)
2. (experimental results)
3. Answers will vary; however, many students will conclude that the data will support their original hypothesis.

Part B: Assessments

1. Answers will vary.
2. Answers will vary.
3. Answers will vary.
4. Answers will vary.
5. Answers will vary.
6. Answers will vary.

**Laboratory Exercise 2**

**Body Organization, Membranes, and Terminology**

**Pre-Lab Answers**

1. c 4. c 7. d 10. a
2. a 5. c 8. d
3. d 6. b 9. b

**Laboratory Assessments Answers**

Part A: Assessments

1. Matching:

1. a 4. a 7. c 10. a
2. d 5. b 8. e
3. a 6. c 9. d

2. Fig. 2.10:

 1. Cranial; brain

 2. Vertebral canal; spinal cord

 3. Thoracic; lung

 4. Abdominal; gallbladder

 5. Pelvic; urethra

3. Fig. 2.11:

 1. Parietal pericardium

 2. Pericardial cavity

 3. Visceral pericardium (epicardium)

Part B: Assessments

1. c 4. g 7. e 10. b
2. d 5. j 8. f 11. a
3. h 6. i 9. k

Part C: Assessments

1. Inferior 4. Anterior 7. Distal 10. Posterior
2. (Correct) 5. (Correct) 8. (Correct) 11. Deep
3. (Correct) 6. (Correct) 9. (Correct) 12. (Correct)

Part D: Assessments

Critical Thinking Assessment:

1. LUQ 4. RUQ
2. RLQ 5. LUQ or LLQ
3. any or all quadrants 6. LUQ

Part E: Assessments

Fig. 2.12:

1. Sagittal (median; midsagittal)
2. Frontal (coronal)
3. Transverse (horizontal)

Fig. 2.13 – Anterior view:

1. Cephalic 4. Sternal 7. Antecubital 10. Carpal 13. Crural

1. Otic 5. Pectoral 8. Antebrachial 11. Femoral 14. Tarsal
2. Cervical 6. Brachial 9. Inguinal 12. Patellar

Fig. 2.13 – Posterior view:

1. Occipital 4. Gluteal 7. Plantar

1. Otic 5. Manus
2. Lumbar 6. Popliteal

Critical Thinking Assessment:

A – Thoracic cavity; pleural cavity – Left lung

B – Abdominal cavity; abdominopelvic cavity – Liver; gallbladder; small intestine; large intestine

C – Pelvic cavity; abdominopelvic cavity – Small intestine; large intestine; left ureter